

CLAIMS

1. A display unit, comprising:

a plurality of semiconductor light emitting devices arrayed on a base body;

5 wherein each of said plurality of semiconductor light emitting devices is formed by selective growth and has a structure such that at least a periphery thereof is surrounded by planes grown from tilt planes tilted from a principal plane of said base body; and

one conductive layer is formed in self-alignment on the planes grown from said tilt planes.

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2. A display unit according to claim 1, wherein at least one of the planes grown from said tilt planes formed by said selective growth in each of said plurality of semiconductor light emitting devices includes an S-plane and a plane substantially equivalent thereto.

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3. A display unit according to claim 1, wherein said one conductive layer is formed in self-alignment such as to be terminated on an insulating film used as a mask for said selective growth.

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4. A display unit, comprising:

a plurality of semiconductor light emitting devices; and

a dummy device, formed together with each of said semiconductor light emitting devices, for determining an emission wavelength of said semiconductor light emitting device.

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5. A display unit according to claim 4, wherein said dummy device is disposed around each of said semiconductor light emitting devices.

6. A display unit according to claim 4, wherein an emission wavelength
30 of each of said semiconductor light emitting devices is changed depending on a distance between said semiconductor light emitting device and said dummy device.

7. A display unit according to claim 4, wherein an emission wavelength of each of said semiconductor light emitting devices is changed depending on a shape of said semiconductor light emitting device.

8. A display unit according to claim 4, wherein each of said semiconductor light emitting devices is made from a nitride based semiconductor.

9. A display unit according to claim 4, wherein said nitride based semiconductor is a GaN based semiconductor.

10. A display unit according to claim 4, wherein said semiconductor light emitting devices are formed on one of a sapphire substrate and a silicon substrate.

11. A display unit, comprising:
at least two kinds of semiconductor light emitting devices having different emission wavelengths, which are formed from a common crystal growth layer formed on a common base body;
wherein electrodes on said base body side form a common electrode.

12. A display unit according to claim 11, wherein an emission wavelength of one of said semiconductor light emitting devices is different from that of another of said semiconductor light emitting devices based on at least one of a difference between said two semiconductor light emitting devices in positional relationship between said semiconductor light emitting device and a dummy device and a difference between said two semiconductor light emitting devices in shape of said semiconductor light emitting device.

13. A display unit, comprising:
a plurality of semiconductor light emitting devices arrayed on a base body;
wherein each semiconductor light emitting device has a light permeable region that is formed in a boundary region between two of said plurality of semiconductor light emitting devices.

14. A display unit according to claim 13, wherein at least two of said base bodies are provided, and a plurality of semiconductor light emitting devices allowing emission of light of a single color are arrayed on each of said base bodies; and

5 said at least two base bodies are overlapped relative to each other in a light emergence direction.

15. A display unit according to claim 14, wherein wiring portions, which are connected to said semiconductor light emitting devices on said at least two base
10 bodies, are overlapped relative to each other in said light emergence direction.

16. A display unit according to claim 14, wherein said semiconductor light emitting devices are not overlapped relative to each other in said light emergence direction.
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17. A display unit according to claim 16, wherein a circuit portion is disposed in a space formed between adjacent two of said base bodies at a position on a back side of said semiconductor light emitting device in a light emergence direction.

20 18. A display unit according to claim 17, wherein said circuit portion comprises a drive circuit.

19. A display unit according to claim 16, wherein an optical element is provided on said base body on a front side such as to face said semiconductor light
25 emitting device on said base body on a rear side in said light emergence direction.

20. A display unit according to claim 18, wherein said optical element is a lens.

30 21. A semiconductor light emitting device, comprising:
dummy devices, which are formed around said semiconductor light emitting device.

22. A semiconductor light emitting device according to claim 21, wherein an emission wavelength of said semiconductor light emitting device is changed depending on a distance between each of said dummy devices and said semiconductor light emitting device.

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23. A semiconductor light emitting device according to claim 21, wherein an emission wavelength of said semiconductor light emitting device is changed depending on a shape of said semiconductor light emitting device.

10 24. A semiconductor light emitting device according to claim 21, wherein said semiconductor light emitting device is made from a nitride based semiconductor.

15 25. A semiconductor light emitting device according to claim 24, wherein said nitride based semiconductor is a GaN based semiconductor.

26. A semiconductor light emitting device according to claim 21, wherein said semiconductor light emitting device is formed, together with said dummy devices, on one of a sapphire substrate and a silicon substrate.

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